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Graphic-Narrative Play: Young Children's Authoring through Drawing and Telling

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Abstract

This arts-based research illustrates how young children engage in 'graphic-narrative play' – a personal fantasy-based experience depicted on paper – while representing imaginary worlds centered on the topic, *what the future will be like*. The descriptions show how the children not only made representations, but also manipulated these in abstract ways as they created and recreated images, ideas and feelings. The findings illustrate how the child becomes a cast of one, taking on *multiple roles* (i.e., artist, author, director, scripter, performer and narrator) and selecting when and how to play with all the available voices offered through the multimodal media – drawing, 'telling', dramatization, expressive sound effects, gesture and movement. These multiple texts involved *embodied authoring* – layers of visual and physical action, character development, plot scheme, scenery and running narrative working in harmony, simultaneously. Children's open-ended construction of meaning surfaced content that reflected universal story themes such as good-evil and capturing-defending, and their voices often were powerful, humorous, philosophical

and reflective. Yet the sequencing of events did not necessarily follow linear structures – instead, the children worked within *fluid structures*.

Multimodal Meaning-Making through Art

Like adults, children communicate meaning in art through the use of signs that ‘stand for’ other things, which become ‘text’ that can be ‘read’ (Chandler, 2002; Kendrick & McKay, 2004; Sweet, 1996; Thompson, 1995). Reading art generally involves interpreting ‘abstractable and combinatory’ elements (Langer, 1924/1971, p. 86), such as lines, shapes, proportions, colors, shadings, composition and perspective. However, interpreting children’s art often is even more multifaceted, particularly when they participate in ‘graphic-narrative play’. This is because graphic-narrative play – a personal fantasy-based experience depicted on paper (Wright, 2005) – involves cross-domain meaning-making, where two intimately connected modes and forms of expression are united, namely the:

- (a) *non-verbal*: graphic depiction, stemming from imagery and visual-spatial-motor memory; bodily-kinesthetic communication through ‘enaction’ and expressive gesture, and
- (b) *verbal*: story creation, expressive vocalization and the use of sound effects to accompany the artwork.

In multimodal meaning-making, the non-verbal domain often will enrich and inform the verbal, and vice versa (Dyson, 1997; Sadoski, Paivio & Goetz, 1991). Hence, reading the multi-modal texts of graphic-narrative play involves not only understanding how children construct meaning using these two domains, but also seeing how children move among sign systems and invent connections between the different forms of symbolizing – drawing, storytelling, dramatizing, using sound effects, gesturing, moving expressively. The content of one sign system is mapped onto the expression plane of another (Kendrick & McKay, 2004; Short, Kauffman & Kahn, 2000; Siegel, 1995). In this way, children become authors of a number of texts, using a range of symbol systems and voices of communication (Eisner, 1994; Kress, 2000a, b; Wright, 2005). As such, the children not only *make* representations, children also *manipulate* representations in abstract ways.

In many ways, graphic-narrative play is similar to how socio-dramatic play unfolds – the child makes and manipulates representations. However, there is no child-child interaction in a social sense. There is no need to negotiate with other children to take certain roles, to collaboratively shape the direction and flow of the content, or to work around other socially mandated constraints (Dyson, 2003). Instead, the child becomes a ‘cast of one’, taking on multiple roles – author, artist, director, scripter, performer and narrator – and is free to become all of the characters, change the plot, layer the action and alter the scenery at will.

The child can select when and how to play with all the available voices offered through the multimodal media (Dyson, 2003; Wilson, 1974; Wilson & Wilson, 1977, 1979; Wright, 2005). Indeed, as in play, children often improvise and sometimes deliberately violate graphic and verbal expectations just for the joy of it.

Consequently, ‘telling’ seems a more appropriate term than ‘storying’ to describe the inclusive range of graphic and verbal voices of communication made available through graphic-narrative play. In addition, ‘telling’ does not imply a particular genre (i.e., story) or hold associated connotations of specific narrative rules (e.g., a linear structure).

Through graphic-narrative play, the child author/artist infuses personal meaning and makes willful choices about objects and events within the symbolic depiction of what Bruner (1986) called "possible worlds." When presented with the abstract task of drawing-telling ‘the future’, children’s consciousness was liberated to roam through an extended present, and to speculate on futures yet to come (Eckersley, 1999; Page, 1994) through open-ended meaning-making and expressive enactment.

Methods

The children in the study were from two primary Catholic schools in a large town within a rural (although not isolated) area of Queensland, Australia. The schools were similar in size, structure and socio-economic aspects. These schools were relatively typical for such contexts, having two classes per grade level of about 24 children per class, within an overall K-6 framework. The ethnicity of the children was almost exclusively Caucasian (about 1 percent were indigenous Australian or Asian), and the community and student catchments for the schools was middle class.

At the time of the study, as is the case currently, Australia did not have a national curriculum, although there is a non-mandated national framework, standards and profiles that specify eight key learning areas, one of which includes the arts (http://www.dest.gov.au/sectors/school_education/programmes_funding/programme_categories/key_priorities/rethinking_national_collaboration). The States and Territories in Australia have responsibility for the curriculum within the public schools, and Catholic primary schools within the state of Queensland follow the Queensland Studies Authority (QSA) syllabus.

During the period of the study, the Catholic Education Commission of Queensland was considering developing a Futures Curriculum based on principles described in Wright (2001). As a result of this new interest and in keeping with religious education practices, some of the teachers in these schools had focused aspects of their curricula on futures-based concepts such as conservation of resources, awareness of pollution and social and global

issues. The child participants in this study received instruction in all areas of the curriculum from their classroom teacher. Neither of the schools employed an art specialist, although there was an art room which contained standard art materials and resources which were accessible to all classes; children participated in art-based activities for about 30 minutes per week.

A total of 108 five-to-eight year old children were randomly selected from three grade levels (preschool, grade one and grade three). At each grade level, half of the participants were drawn from each of the two schools, with the aim of achieving about 20 boys and 20 girls at each grade level (after allowing for attrition over the research period). The breakdown of this distribution of participants per grade level is as follows:

<i>Total per grade</i>	<i>Boys</i>	<i>Mean age in months</i>	<i>Girls</i>	<i>Mean age in months</i>
30 Preschool	16	63.5	14	63.3
38 Grade One	19	75.0	19	75.47
40 Grade Three	20	98.7	20	99.45

A complete description of the research design and the art-making task are provided in Wright (2001, 2005). In brief, on a one-to-one basis (i.e., interviewer-child), each child drew a picture using white A3 paper and a set of colored felt pens to represent their view of *what the future will be like*. They were encouraged to discuss their drawing while they worked, and also had the choice to tell a story at the completion of their drawing (in case children were not particularly talkative during the experience). The invitation to tell a story also was included to see what aspects the child's work were featured and to compare the story genre with the child's 'telling' of the work (e.g., structure, plot). To elicit the key focus of the content, each child also was asked to give his/her work a title.

Throughout the drawing-telling experience, the interviewer asked open-ended questions, seeking clarification and extension of the child's images and stories. This was a challenging task as she simultaneously kept running records summarizing what was said, making rough sketches of the child's images, and numbering these to note the sequence in which they were drawn. Although there were incidents in which the interviewer appeared not to understand the child's intent or may have 'lead' the child's work in unintended directions, in general her interactions with the individual children were sensitive, positive and supportive. Nonetheless, it is acknowledged that the role of the adult as facilitator of the child's work, such as protracting the process through dialogue (which may have added to the expressiveness of the children), is a significant issue, and a discussion of this role and the implications it has for classroom practice is a larger topic that will be addressed in subsequent publications.

The sessions, which ranged between about 15-60 minutes in length, were video recorded to capture the children's words, gestures, body language and facial expressions in relation to their unfolding drawings-stories. Detailed transcriptions of parallel streams of images and verbal and non-verbal communication were then compiled to form the basis for analysis.

A developmental semiotics style of analysis was used to interpret the drawings-stories-gestures (Athey, 1990; Golomb, 2004; Matthews, 2004). General classification of emergent codes began with a broad taxonomy that included:

- children's *content* in relation to living things, their environments and socio-cultural patterns, and
- children's *forms* of verbal and non-verbal communication (image, story, gesture, expressive vocalization, body language and pauses).

Subsequent coding categories and subcategories emerged and became elaborated as additional examples surfaced new concepts. Results revealed that children's content about Futures was virtually boundless, and the forms of communication they used to execute their topics frequently were embodied, which often resulted in graphic-narrative play.

Two examples from the data are presented in Figures 1 and 2. The first example (Figure 1) illustrates how several events were depicted on the same page, and how a number of objects and figures were represented several times to capture the sequences of these events. The second example (Figure 2) illustrates how a number of graphic devices were used to illustrate movement and physical connections between objects, and to bring aspects of events 'alive'. Both examples come from boys – a phenomenon which seems to be linked to how graphic-narrative play is a more common form of representation for boys than for girls. This issue and other gender-related topics are addressed in greater detail in the summary of findings and conclusions presented at the end of this paper. Developmental matters and the influence of media, fairy tales and other narrative forms on children's graphic-narrative play are topics that will be addressed in subsequent publications.

Repetition of Objects and Figures: Sequences of Events

Figure 1 illustrates Joel's (pseudonym; aged 6.4 years) depiction of two main events occurring simultaneously in two different parts of the world. On the left-hand 'side of the world', in the rectangle taking up about one third of the page, Joel drew an Olympic event, with two athletes running around a track. Joel added an unexpected plot scheme of a bomb explosion occurring during the Olympics (a narrative device which allowed for the juxtaposition of good and evil; an aspect described in more detail in the summary of the findings). [It should be noted that the Olympics was a topic of interest to some children at the time of the data collection as the hosting of the event in Sydney was imminent].



Figure 1. The Bomb Explosion and the Police Place

A segment of the conversation between the interviewer (I) and Joel (J) is as follows:

- J: This is it here: The Olympics. And that's where the bomb came.
 I: That's when the bomb went off at the Olympics, is it?
 J: Yeah, and that's all the metal things that came up.
 I: Mm hmm. So the red is all where the bomb went off.
 J: Yeah.

This Olympic event was one part of a dual-depiction: simultaneously a police-station event was occurring on the other side of the world (the right-hand side of the page). Joel demonstrated flexibility of thought as he grappled with how to illustrate these two events on one page. He was conscious of the fact that when it was daytime at the Olympics, it would be night on the other side of the world, saying:

And now... the sun is shining up here [left-hand side] where all the medals are, and it's dark over here [right-hand side] at night time.

To introduce his second plot scheme, Joel started in the top corner of the page by drawing a sun. His schema of sun included facial features and small orange dots between its rays. As soon as Joel had drawn the sun, he realized that he had two suns in his drawing and that both events could not occur during day-light hours; one side of the world must be night.

J: Woopsies! I've done the Sun at the wrong side [the left side].

I: Did you? Where did you want to do it?

J: Over here [the right side].

I: Over there. Oh, why's that?

J: Because that's [left side] the other side of the world, and that's [right side] the....this side.

To change the Olympic event into night time, Joel graphically used a film and television technique to create a 'scene break'. He simulated a 'fade to black' transition to 'cut' from the Olympic event to a new theme.

J: I'll just draw over it [the sun]. *Draws a rectangular 'frame' around the Olympic event.*

I: So what is the black line for?

J: To show you which one's [side of the world] dark and which one's light. *Fills in the left-hand side of the frame with thick, black scribble lines, widening at the top to cover the sun.*

After 'putting the sun to sleep', Joel returned his attention to the right-hand side of the page and depicted an elaborate, second event. (To avoid confusing the issue, this second event is described in detail later – the focus at this time is on Joel's creative means of cutting between these two events). As with the Olympic event, Joel treated this second event as an 'episode', the conclusion of which represented the end of a day. Thus, after depicting the 'right side of the world', Joel returned to the left-hand side of the page and 'faded in' the Olympic event again by added a third yellow sun at the top left-hand corner of the page, squeezing it in between the black scribbled lines and the green metal from the explosion. Graphically, Joel changed the Olympic scene back into day again, saying:

And now... the sun is shining up here [left side] where all the medals are. And it's dark over here [right side] at night time

To make it dark on the right-hand side of the world, Joel extended the black line above this 'third sun' right across the top of the page, up to the right-hand 'second sun'. This line served to symbolize the continuity of 'sky' throughout the world, and to represent the variability of lightness-darkness at different times and locations on earth. Graphically, the

fade-in and face-out role of this line fulfilled a play-based ‘closure’ function, similar to covering a doll’s eyes with a blanket to put it to sleep. The use of suns and black scribble lines provided Joel with a symbolic means to depict a sequence of light and dark events which connected the before and after, both temporally and spatially.

Several other examples of temporal-spatial relations are illustrated in Joel’s depiction of the ‘other side of the world’ – a scene which Joel entitled ‘The Police Place’ (right-hand two-thirds and lower part of the drawing). For instance, the same dog is drawn in several positions to depict a sequence of movements. First, Joel drew a slide with a dog at its base. Then he drew a second dog at the top of the ladder, and a third dog sliding down the slide. This repetition of the dog schema represented a police dog being trained to run over the slide.

Similar to how Joel gesturally-graphically ‘enacted’ the turning of day into night and back into day, Joel’s repetition of the dog in three positions was embodied through action. Joel not only drew the dog sliding down the slope, he gestured the downward-and-outward movement with his hand and accompanied this with a vocalized sound effect, ‘Woops!’

I: So that’s the dogs training is it?

J: Yeah.

I: And they’re training to...what, run up the ladder are they?

J: Yeah, and go...and run down it. That’s when it’s going up and that’s when it’s up the top and that’s when it’s going down.

I: OK so there’s only really one dog here. It’s just in different positions. OK.

To the left of the dog-training slide Joel draws a blue rectangular police car with red and blue lights on top. Right of the slide he draws a tall watch tower with a police man standing guard. Then he draws three yellow house-shaped jails, located at the top of the page, above (behind) the slide. Vertical lines are drawn to symbolize the bars of the jail, and stick figures are added in the two larger jails. Once again, Joel repeats images to illustrate a sequence of events, namely a policeman and a police dog capturing and jailing a ‘bad person’.

I: Now that looks a bit like a jail is it, with all the bars?

J: Yep.

I: So who do you keep in there?

J: All the bad people. *Draws a green person to the right of the slide.*

I: Oh right. And what did you just draw then? Another person did you?

J: Yeah. *Draws another brown dog, left of the dog in the top position on the slide.* And this is where all the guard dogs are going after the person.

I: Oh, is he sort of running away is he?

J: Yeah. Because he's the one that's escaping. *Points to the green stick figure near the slide.* But here they caught him and put him in jail. *Draws another green stick figure in the third, small jail* [to show that he is now captured and put behind bars].

Joel's layering of this event was brought to life as he inserted the relevant content (the jail) and characters (the convict and the police dog), supported by his narration and gesture. The dual depiction of the convict being chased around the jail yard and then being put back behind bars, functioned as another before-after sequence which unfolded through a temporal-spatial representation. Like the sliding-dog episode, this embodied capturing-defending theme was drawn and role-played on paper.

Yet there was no film-like technique that could be applied, such as the fade-out that was used in the earlier blocking out of the 'first sun' to introduce a 'second sun'. Although arrows might have been used to indicate the movement of the criminal escaping and returning to jail, or the graphic device of 'whoosh lines' might have been used between the three dogs on the slide to show that it was one dog moving through three different positions, these devices were not selected, or perhaps were not part of Joel's graphic repertoire. Hence, the embodied nature of these escaped criminal and sliding dog episodes were clarified predominantly through Joel's narration, gesture and expressive vocalization, and the lasting evidence of these events – marks on paper – appear as relatively static, rather than active, visual representations.

Similarly, two other components of Joel's work illustrate relatively static-looking temporal-spatial enactments on paper. First, Joel depicted the policeman a second time: catching a pig, with the assistance of his police dog, named TJ. Joel drew a pink pig, left of centre, at the bottom of the page, and added a brown dog left of the pig (using the same 'animal' schema for both dog and pig), with the policeman following the two animals. The addition of a second ground line (zig-zag grass) at the bottom of the page provided an extension of space, giving the drawing a sense of depth, with the policeman-dog-and-pig chase scene occurring in the foreground.

I: So what have we got, some more dogs have we?

J: No that's a pig. And it...they're trying to catch the pig because it keeps on hurting people.

I: Who's trying to catch it?

J: The dog. And I've still got to do the person. *Draws a dark blue figure, left of the dog at the bottom of the page.*

I: Mmm. Is that...is that T.J. here [referring to the dog Joel has named]?

J: Yeah, that's T.J. *Writes 'tj' using purple, just above the dog and writes 'Joel' using blue, below the stick figure. Adds a purple dot to the j in 'tj'.*

Second, Joel illustrates another before-and-after event in his graphic-narration when he is asked what he will do in the future.

I: Now can you just tell me a few things, about, um, yourself? Because you're grown up [in the future] you said. And before you told me you'll probably have to leave home... 'cause you might have to live somewhere else.

J: [nods] But I still couldn't do [draw] the house [in this drawing].

I: And you weren't too happy about that were you?

J: No.

I: Are you going to add your house in now, are you?

J: Yeah. *Draws a black stylized house in the bottom right-hand corner of the page, with a stick figure standing beside it.* This is when I'm leaving home (points to house at the bottom of the page). *Adds a thin, stylized house, squeezed in between the blue police car in the centre of page and the rectangular frame of the Olympic event.* And here's where I am... where I'm living now (points to the small, second house).

Finally, the interviewer attempted to find out what Joel might consider to be the key components of his graphic-narration by inviting him to give his work a title. Joel replied:

Um... This is the 'Bomb Explosion' and this is the 'Police Place'.

To seek further extension on this title, Joel also was asked if there was a story that goes with the drawing. Ironically, Joel's relating of the 30-minute experience in a truncated story-form bore little resemblance to the richness of characters, objects, events and dual-depiction of world affairs that were drawn, told and enacted throughout his graphic-narrative play. It was as if Joel 'fast forwarded' the story to the concluding event, omitting all of the detail that occurred beforehand.

I: And is there a story that goes with your drawing?

J: Yeah. This is when I'm an adult, and I'm leaving home. And this is where I'm a... when I'm bigger.

Joel's truncated story did not reflect the multifaceted communication that occurred throughout his graphic-narrative play. Yet synopsis versions of children's drawings-stories are what many adults hear when they ask children to talk about their work. Such post-hoc tellings generally do not contain the richness of content nor capture the depth and type of participation that actually occurs during the child's enactment. As was exemplified by Joel's later retelling of the experience, key embodied concepts (e.g. turning the night into day;

chasing a criminal and putting him back in jail) became ‘invisible’ components of his meaning-making.

One needs to have observed the graphic-narrative play to grasp the significance of the enacted occurrences and the layered unfolding of visual-verbal-gestural symbolic acts to understand the embodied nature of a child’s meaning-making. By observing the drawing, listening to the telling and noting the gestures and expressive vocalizations of the child, we come closer to understanding the complete graphic-narrative play event.

Joel’s graphic-narrative play was one of about a dozen ‘star’ examples within the total group of participants. It was particularly imaginative and included several subcomponents of embodiment depicted through repetition of content to show sequences of events, and abstract temporal-spatial concepts. Yet there were numerous other cases of children’s embodiment within the study, albeit at a less elaborate or sophisticated level. These children did not separate their thoughts and feelings from the physical elements of their communication. Embodied representation was characterized by the amalgamation of spatial, visual, oral and bodily-kinesthetic dimensions in such a way that the combination of authorial devices became more than just the sum of their parts.

Such multiple forms of enactment are illustrated in the following example of another ‘star’ participant, Joshua (pseudonym; 8.6 years of age). Perhaps as a result of either being two years older than Joel, or having more extensive drawing experience, Joshua’s graphic-narrative play included many examples of graphic devices to symbolize movement and/or sequences of events. The use of these devices provided visual connections between objects, and left visible traces of actions on the page, to clarify relationships between objects and events.

Graphic Devices: Movement and Connections

Joshua described a semi-trailer taxi which cars can enter, and then be transported down the freeway while the drivers have a sleep (see Figure 2). After drawing the semi-trailer (centre of page) and the cars suspended from its ceiling, Joshua said:

You just can go to sleep, and that [semi-trailer] travels wherever you want it to go. It’s like a taxi carrying lots of cars. *Joshua adds ‘zzz’ word balloons above the cars to show that the drivers are ‘having a snooze’.*

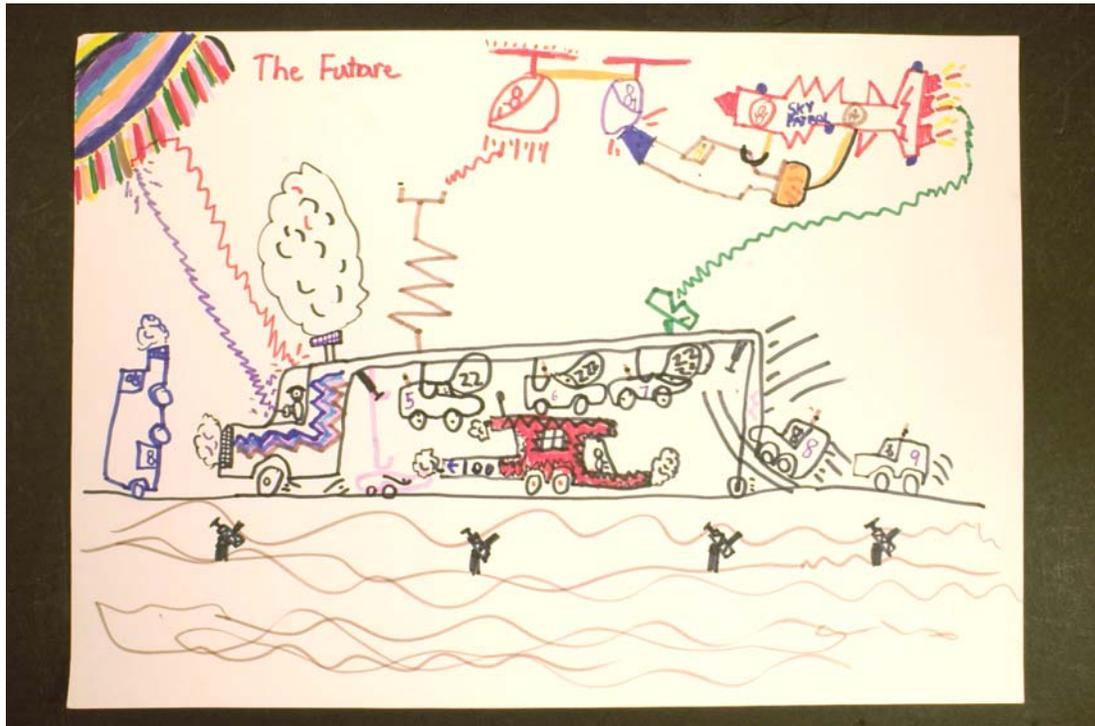


Figure 2. Sky Patrol

Joshua used many graphic devices in his drawing to symbolize movement and to show the relationship between the semi-taxi and the various ground vehicles and aircraft. These graphic devices not only brought the artwork ‘to life’, but also provided a sense that one is witnessing an episode in an action-bound film. His futuristic depictions of transportation and state-of-the-art technology included a strong focus on surveillance (e.g. four cameras in the dirt beside the road; cameras in the trailer of the semi-taxi to protect the driver and to record any possible criminal behaviour; a Sky Patrol that served a police-ambulance role; and the need for the semi-taxi driver to report in at various stations along the road). To illustrate many of these concepts, Joshua included the following graphic devices to represent movement:

- ‘exhaust puffs’ from the back, front or top of the various ground vehicles,
- ‘hover lines’ below the double-direction helicopter (top centre),
- ‘flames’ at the back of the Sky Patrol (top right), and
- ‘ramming’ lines in front of the plane (top right) as it slams into the back of the double helicopter (top centre).

These graphic devices helped support his graphic-narrative play, which included several action-based episodes. Three hooking and un-hooking events served as a unifying device throughout the drawing-telling, lending a ‘plot thread’ to Joshua’s graphic-narrative play:

Cars Hooking to the Top of the Semi Taxi. *Joshua draws a ramp off the back of the semi, with two cars moving up the ramp into the truck, and ‘whoosh lines’ behind them.*

I: So, sort of, can you drive on there while it’s going along, can you?

J: Yeah. You just drive up, and then you get hooked up... onto [the roof of] it, and then it drives wherever you want.

Cars Unhooking to Leave the Semi Taxi. *Draws an exit tunnel below the cab of the semi-taxi.*

J: You can easily just get off [the semi taxi] because, um, like there’s another wheel there (points behind the front wheel of the semi). And there’s a tunnel through, between the wheels just there, and the hooks just lower you down. *Draws a small pink car suspended by a long pink hook being ‘lowered’ to the tunnel area just behind the front wheel of the semi-trailer; adds ‘whoosh lines’ to represent the exiting of the car.* And then you just drive beside the semi trailer, like overtaking it. Or you could just drive backwards, through the tunnel.

Sky Patrol Hooking to the Back of the Plane. *Draws a double helicopter, airplane and Sky Patrol aircraft (top right-hand section of the page).*

J: If any plane’s like...tryin’ to land other aircrafts, that Sky Patrol can just come along and just hook ‘em with a hook. I’m just going to draw a, sort of like a, funny type of plane trying to ram a helicopter. *Adds a solid blue section to the front of the plane, and red ‘ramming’ lines to show the plane striking the helicopter.*

I: So there’s a Sky Patrol...

J: Yeah, and he’s on duty, because someone’s trying to ram that helicopter.

I: So what’s this, other plane? This is the naughty one is it, that’s going to ram the, ah... [notes the ‘ramming lines’] looks like he **has** rammed him.

J: Yeah.

I: And, so then ... what does the Sky Patrol do?

J: Oh, he has... *Adds a yellow line below the front part of the Sky Patrol, with a black hook at the end.*

I: Sends out a hook or something, does he?

J: Yeah, it stops them from going any further. And they have a little, sort of like sucking thing that, like sucks on to the back of their engine so they can’t move any

further. *Adds a long black line below the mid section of the Sky Patrol and a large backwards-C shaped suction cup. Fills in the 'C' with orange, and adds small red 'suction' lines inside it.*

I: Mmm. So it's a suction thing as well as a hook.

J: Yeah. The hook is on the front one, but the suction thing is on the back.

In addition to the actions of hooking and unhooking, Joshua used a graphic device of 'zigzag lines' to illustrate the invisible energy source of radar waves and to illustrate connections between the various ground and sky vehicles. [Note, all of the cars inside, or entering/exiting the semi have small antennae on the top of them to receive these signals]. The roles that the radar played were to (a) facilitate multiple communications between drivers/pilots and to patrol ground- and air-based traffic, and; (b) to draw warmth and coolness from the sun to air-condition the vehicles. These cause-and-effect connections are discussed below in relation to two themes: Radar and Heat Detection, and 'Voluming' the Temperature.

Radar and Heat Detection. *Draws a radar dish with a green zigzag line going from this to the back section of the sky patrol plane.*

J: I made a little radar [dish] on the semi-trailer *(a brown, zigzag aerial at the top front of the semi-trailer taxi, just behind the cab)*. It's a sort of square with a, sort of like, cake piece out of it...that detects like all hot things, like fire and the sun, and like all the engines; it detects the engines. *From the tips of the aerial, Joshua adds a smaller red zigzag line to connect with the hover lines below the double helicopter.* And sometimes when it hits the engines, the sky planes could go down.

I: And what does [the aerial] connect to? What can they sort of contact?

J: They can, um, oh they can listen to the radio, and they can contact, um, the helicopter and that rocket.

'Voluming' the Temperature. *Draws mult-colored rays at the bottom of the large colorful sun, top left-hand corner.*

J: It's not really just yellow that's shining from the sun, it's like... pink...and green...and the sun is sort of like different colors. The sun itself... is blue and yellow, and different, lots of different colors. *Draws a purple 'zigzag line' going from the steering wheel of the semi trailer, up to the sun, with 'splash' lines at each end to show contact.* It's volumed by someone, um, it's volumed by the person in the truck, semi-trailer... how hot it goes and how cold it goes.

I: Mmm, so, what? That person can control the sun, can they?

J: Yeah, [with] a special sort of like remote control. *Draws a pink' zigzag line' coming down from the sun, with 'splash' lines where it contacts the cab of the semi trailer.*

I: Oh... So they can control the heat?

J: Yeah, and the coldness. *Draws several, parallel pink, blue, black and brown zigzag lines in the section under the cab, taking on the contours of that area.*

So...there's light blue and dark blue in there. And, um, they can take out the...sort of like...hot colors, like red and yellow. And they can leave in sort of like the cold colors, like blue and green.

As illustrated in these examples, Joshua's use of graphic devices liberated him to draw and describe a number of scientifically sophisticated concepts. Yet the radar, surveillance, temperature control and other underpinning concepts were not the feature of his graphic-narrative play. Instead, these aspects punctuated and sustained the content, but remained subservient to the action-packed drama.

Indeed, the unfolding sequence of events created the impression that one was viewing a segment of a James Bond film, with several machines speeding through space, and many noisy, action-filled encounters being enacted. The characters in the various ground vehicles and aircrafts all had active roles to play in the episodic adventure, such as:

- the car drivers were entering or exiting the semi-taxi, having a snooze in between;
- the semi-taxi driver was not only driving, but also 'voluming' the temperature in the vehicle through the use of a remote control, while simultaneously monitoring, through the surveillance cameras, what was going on in the back of the truck; and
- the Sky Patrol was preventing the aggressive collision of the airplane and the helicopter, while communicating with back-to-base police about bringing the aircraft down and capturing the pilot to take him to jail.

These events (and other events not described in detail here) would not be as vivid, and perhaps would not have been communicated at all, without the inclusion of the action lines. The whoosh and zigzag lines were critical to showing the movement and interaction of the various objects and events within the plot. These graphic devices brought the content to life, and played a significant role in the visual telling. They illustrated sequence, inter-connectivity, plot, layers of visual and physical action and character development. Most importantly, these devices provided the evidence of the embodied nature of Joshua's graphic-narrative play. It was as if Joshua were drawing a story-board for a film while playing out all of the characters, changing the plot at will, layering the action and deciding when and how to play with all the available voices offered through the multimodal media – drawing, telling, dramatization, expressive sound effects, gesture and movement.

Like Joel, Joshua became a cast of one, taking on multiple roles – artist, author, director, scripter, performer and narrator – and could move in and out of these roles at will to suit how he wanted to represent his imaginary world, brought to life on paper. Yet the complete transcripts of these two boys’ visual-verbal-gestural work were not presented, largely because much of their highly detailed and complex content was outside the theoretical focus of this paper. Some of this content, along with several other constructs besides graphic-narrative play, will need to be presented in subsequent publications.

Summary of Findings: Embodiment and Narration

Two overarching themes that are pertinent to the construct of graphic-narrative play are summarized to illustrate how Joel, Joshua and numerous other children constructed their imaginary worlds:

1. Embodiment: Meaning-Making through Gesture, Graphic Devices and Word Play, and
2. Narration: Universal Themes, Subject Positionings and Allegory within Fluid Structures.

The principles underpinning these two themes are discussed in a generic sense, and examples from Joel and Joshua will be provided as exemplars. However, it should be noted that similar trends were supported by many other children from the sample of over 100 participants.

Embodiment: Meaning-Making through Gesture, Graphic Devices and Word Play

Embodied feeling/knowing is a significant conduit for helping young children organize and make sense of their environments. Such understanding frequently is reflected through a process in which the meaning from one mode (e.g. visual) is understood in another mode (e.g. spatial, oral or bodily-kinaesthetic) (Kress, 2000b).

We often visualise a thought before the words come, or hear a word and many senses come to mind (e.g., visual, aural, touch, smell, taste). Commonly we use metaphors or simile to describe this cross-over of modes, such as when we talk about “imagery” in written text, or “perspective” and “points of view” in oral arguments (Johnson, 1991). In particular, it seems inevitable that we use postural and bodily-kinaesthetic similes to communicate the qualities of our affective states. We all know, for example, what is meant when someone says that they were made to feel “small”, or were “weighed down” with care, “stiff” with fright, “heavy” with apprehension, “light” as air, “depressed”, and so on. The use of such expressions is not unique to the English language (Swanwick, 1988, 1999). Particularly with young children, who may not have the vocabulary to describe their concepts verbally, their

expression often is cross modal and may involve word play which carries elements of metaphor or simile.

Increased attention is being given to the cross-modal cognitive functions of imagery and the body as sources of order, which *exceeds* that of language and logic (Best, 2000; Johnson, 1991; Ross, 2000; Walker, 2000; Wright, 2005). Imagery is like visualising stopped action frames, or visual impressions of actions or movements. Children create and re-create similar imagery during the process of meaning-making and meaning-manipulation through drawing. Yet such imagery and symbolic representation are not always confined to the paper. Indeed, the boundary between the self and the artwork-telling is often blurred, and there appears to be a compelling need for children to dramatize or physically demonstrate their ideas.

Such embodiment is done partly to clarify to the ‘outsider-observer’ the actions of characters, or the movement of objects. In other words, when language and graphics become inadequate to express what the children want to say, they rely on gesture. However, the role of the body is more significant than for simply clarifying visual-verbal communication. Instead, embodiment seems to be deeply imbedded in the children’s act of meaning-making itself, as the children come to know or understand that which is being created.

There were numerous examples in this study of children’s embodied depictions of characters, objects, events and feelings which involved an intimate interplay between graphic depiction, narration and gestural elaboration. This interplay was accentuated through the following strategies, and these are illustrated through examples from our two ‘star’ performers, Joel and Joshua:

- *pointing to explain abstract content and to bring it to life*
 - Joel pointing to the left- and right-hand sides of the page to explain the changing juxtaposition of light and dark, and
 - Joshua pointing to the sun and the semi-taxi to show how the driver connected with the sun’s energy through the remote control;
- *using graphic devices to symbolize movement, time, connections and ‘re-location’*
 - Joel’s zigzag lines arching over the Olympic scene to show the dynamic explosion of the bomb, his black line across the top of the page to show the passage of time, and his repeated depictions (i.e. ‘relocation’) of the policeman, police dog, criminal and house to show multiple roles, placements in space and actions, and
 - Joshua’s helicopter ‘hover’ lines, jet ‘fumes’, ground vehicle ‘exhaust puffs’, back-of-semi ‘door-raising’ lines, car-entering ‘whoosh’ lines, ‘ramming’ and ‘suction lines’ between the Sky Patrol and the airplane, zigzag ‘radar’ lines

between various vehicles, ‘splash’ lines on the sun and the cab of the semi-trailer, air-conditioning ‘flow’ lines inside the cab, and sun ‘energy’ lines to ‘volume’ the temperature; and

- *using word play to express concepts*
 - Joshua’s sun being ‘powered’ by the semi-trailer taxi driver, who could parcel out either hot or cold colors to heat or cool, and to ‘volume’ the temperature in the cab and the back of the truck, and
 - Joel’s dual meaning of the ‘metal’ exploding from the bomb and the Olympic ‘medals’ of the athletes, flying into the sky.

Although the examples of Joshua’s and Joel’s highly imaginative graphic-narrative play experiences were exceptional in that they included several of the elements described above, many children in the study used similar techniques, however generally on a less grand scale. Like Joel and Joshua, children depicted many embodied experiences that illustrated movement concepts such as forward, backward, lowering and rising (Wright, 2005). Their graphic, verbal and gestural clarifications brought these events ‘alive’. In particular, gesture helped many children to clarify their content and enhance aspects of their artwork that might not be depicted easily in a still, 2-D format (Wright, 2001, 2003b).

Narration: Universal Themes, Subject Positionings and Allegory within Fluid Structures

Throughout history, narratives have provided structure, predictability and coherence to life. In many ways, narratives are similar to schemas or ‘scripts’ for familiar events in everyday life (Gardner, 1991). Chandler (2002, p. 90) states that turning experience into narratives “seems to be a fundamental feature of the human drive to make meaning”. According to Bruner (1990, pp. 45, 80), we are “storytellers” with a “predisposition to organize experience into a narrative form”. As Bruner points out, storytelling is encouraged in our socialization, and we learn to adopt our culture’s way of telling.

While drawing often is non-narrative, it also can be a powerful medium for organizing experience into a narrative form. Indeed, narrative is a ‘deep structure’ which can be found in any mode – visual or verbal, fictional or non-fictional, literary or non-literary (Stern, 1998, p. 5). As has been illustrated in this paper, children’s narrations were embodied visual-verbal tellings, intimately linked with fantasy-based play. The themes of the children’s graphic-narrative play reflected cultural models, which seemed to be inspired by a blend of popular media (fiction) and personal events (non-fiction).

Palmer (1986) and Sutton-Smith (1995) have discussed how young children seem to be drawn to stories that tap into the universal themes that are deeply embedded in children's folk culture, such as the *capturing* and *defending* themes that were depicted in Joshua's and Joel's graphic-narrative play. Such superhero stories, which contain elements of powerful characters triumphing over evil, often armed with technological tools, have been traced back to nineteenth-century action-adventure stories for children, and many elements of such stories can be found in current science-fiction comics, cartoons and children's films today (Kline, 1993). For instance, the contemporary film *Shark Tale* includes a vegetarian shark who enjoys dressing up as a dolphin and is willing to assist a scrawny little fish to stage a false shark attack to protect his community and constitute himself as a famous shark slayer. For thousands of years, similar themes have been reflected in the myths, legends and folklore that have been passed from generation to generation, which were used to impart sublime truths accessible in no other way (Campbell, 1991).

The universal themes of folk culture are rooted in dualisms, or binary oppositions. Binary oppositions, such as dominance/submission, real/imaginary, natural/supernatural, provide a "basic marker of humanity" (Leach, 1982, p. 109) and "help to generate order out of the dynamic complexity of experience" (Chandler, 2002, p. 101). Jakobson and Halle (1956, p. 60) claimed that "the binary opposition is a child's first logical operation" and that dualism is central to the development of human categorization. Dualism was reflected in the *plot thread* of the two boys' stories presented in this paper, in particular *the interplay between good and evil*. For example:

- Joel drew a policeman and police dog chasing a criminal to put him/her back in jail. He also drew athletes competing at an Olympic event which was jeopardized by a bomb explosion – red, zigzag explosion lines represented the blast of the bomb, and sharp green pieces of metal burst upon its impact. Joel also contrasted light with dark, a common binary opposition used in ancient mythology. However in Joel's telling, the light-dark juxtaposition did not contain symbolic elements such as a good side of the world versus an evil side. Instead, both sides of the world contained both good and evil, and
- Joshua described the Sky Patrol as serving a dual function: an on-the-ground and off-the-ground police-ambulance role, with affiliated camera surveillance to catch people and take them to jail. There was a need for cameras along the road and in the cab of the semi-taxi to prevent the passengers from attacking the driver. Joshua said, "If he [passenger] tries to bash him [driver] up, the cameras will just beep real real loud, and they'll just give a signal to the sky patrol, so that the sky patrol can sort of hear them".

Proportionately more eight-year-olds boys in the study made embodied connections with their artworks-stories, compared to the girls or younger boys. This result may be linked to the tendency of many of these boys to select action-packed, superhero, Sci-Fi content which involved ‘movement upon the page’ – interactions between objects and characters that enlivened, located and relocated the action at will, to suit the author’s unfolding narrative. Inspired by models of popular media and personal events, the boys’ content included spacecrafts, missiles, force fields, sporting events, robots, aliens, and characters influenced by favourite DVD, TV and digital-game characters (Wright, 2005). Golomb (2004) also noted that such plots of power, destruction and victory appeal mostly to boys. She found that boys “reveal an intense concern with warfare, acts of violence and destruction, machinery and sports contests” (p. 160).

By comparison, girls in the study reported here seemed to be more focused on environmental issues and socio-cultural patterns – topics that will be discussed in subsequent publications. The girls tended to depict more tranquil scenes such as family life, social relations, landscapes, friendships, children at play and romance. As was found in Golomb’s (2004) studies, the girls drew images that were derived from fairytales (e.g. kings and queens); animals often assumed centre stage, and ambition was expressed in themes that touched on stardom, fashion, beauty, fame and popularity (pp. 162-163).

The slower-paced, more interpersonal characteristics of the girls’ images might also be associated with how girls have been socialised to adopt their culture’s way of telling (Bruner, 1990), learned through exposure to media, such as television ads. For instance, Merris Griffith’s (cited in Chandler 2002) examination of the production and editing styles of television advertisements for toys showed that the style of ‘girls’ advertisements’ had significantly longer shots and significantly more dissolves (fade out/fade in). In addition, there were more close-ups, and more level shots (i.e. fewer low or overhead shots). As Chandler (2002) points out:

The gender-differentiated use of production features which characterized these children’s commercials reflected a series of binary oppositions – fast vs. slow, abrupt vs. gradual, excited vs. calm, active vs. passive, detached vs. involved. Their close association in such ads led them to line up consistently together as ‘masculine’ vs. ‘feminine’ qualities (p. 117-118).

Learning the culture’s way of telling is linked to how conventional narrative, in dominant forms such as literature and cinema, plays a part in the constitution of the subject. By viewing and listening, the subject participates in the identification with characters and events (Nichols, 1981, p. 78). However, through graphic-narrative play, children not only *identify*

with the characters and events, they *create* and *shape* these at will. The process and content of this construction, in many ways, is akin to allegory, which is:

the representation of abstract ideas or principles by characters, figures or events in narrative, dramatic, or pictorial form
(<http://dictionary.reference.com/browse/allegory>).

The children enter a multi-textual space – integrating narration, dramatization and picturing – in which they can plan, enact and examine imagined worlds from the inside (Friere, 1970; Paley, 1980; Rosen & Rosen, 1974; Wagner, 1991). They can play and replay these worlds, making a range of authorial choices involving visual action, character development, plot scheme, scenery and running narrative. As mentioned earlier, the child simultaneously becomes author, artist, director, scripter, performer and narrator and has the power to choose to become some or all the characters, change the plot, layer the action and alter the scenery at will. By deciding how and when to play with the numerous voices available through drawing, telling, dramatization and movement, children are empowered to make choices about coherence and disruption, about power and powerlessness, and about a range of other issues (Dyson, 1997; Sutton-Smith, 1995).

As in allegory, the characters in children’s graphic-narrative play “often have no individual personality, but are embodiments of moral qualities and other abstractions” (<http://www.infoplease.com/ce6/ent/A0803383.html>). For instance, even though Joel labeled himself and the dog in the drawing, it was reasonably clear that the message was meant to be allegoric rather than specific. It is worth repeating the segment of the transcript presented earlier to illustrate how Joel’s language (e.g. ‘they’, ‘the dog’, ‘the person’) referred to generic characters that were enacting symbolic acts of defending-capturing, rather than standing for ‘my dog, TJ’.

I: So what have we got, some more dogs have we?

J: No that’s a pig. And it...they’re trying to catch the pig because it keeps on hurting people.

I: Who’s trying to catch it?

J: The dog. And I’ve still got to do the person. *Draws a dark blue figure, left of the dog at the bottom of the page.*

I: Mmm. Is that...is that T.J. here [referring to the dog Joel has named]?

J: Yeah, that’s T.J. *Writes ‘tj’ using purple, just above the dog and writes ‘Joel’ using blue, below the stick figure. Adds a purple dot to the j in ‘tj’.*

That Joel labeled himself and the dog in his drawing seemed more an act of compliance to the interviewer’s probing than a desire to identify with individual personalities within the

artwork-telling. Joel's generic depictions of characters, objects and events were meant to symbolically take on a broad-ranging, 'standing for' function. For instance, Joel's schema of a dog served to represent all dogs at the Police Place, which is reflected in his statement, "and this is where all the guard dogs are going after the person". In other words, the single dog chasing the pig stood for not only the dog(s) running over the slide, but a representative set of 'invisible' dogs, in the wings, so to speak – they were not drawn but implicitly on 'standby' for that 'scene'.

The characters in Joel's and Joshua's graphic-narrative play events allegorically symbolized strength, bravery, crime prevention, justice and other abstract qualities. These abstract principles were not necessarily intended to be literal. Instead, the graphic-narrative play was an allegoric fantasy on paper. The action was played out on a seemingly impersonal plane of pictorial fantasy, on which superheroes and archvillains enacted their struggles (Wilson, 1974; Wilson & Wilson, 1977, 1979). Indeed, often the narrations were presented in third person, as if the author were either separate from the dramatic action, or could impersonally 'be' *everyone* and *no-one* at once. The boys could choose how, when and at what level to participate in the multifarious roles of the characters and contexts.

This sense of 'multiple personality' enactment is evidenced in the concluding conversation between Joshua and the interviewer, where she is attempting to ascertain what Joshua would like to do in the future, and what he would consider to be the title (i.e. key essence) of his artwork-telling. In the following transcript, it is noteworthy that Joshua gave a non-descript title and seemed to not consider the elaborate narration that accompanied his experience as constituting a 'story':

I: Are you in the picture anywhere? What do you think you might be doing, if you are in the picture?

J: Might have been driving the semitrailer, or the Sky Patrol.

I: Right. So you'd like to be one of those drivers would you? Which one would be more exciting...the semi, or the Sky Patrol?

J: The Sky Patrol.

I: The Sky Patrol would be very exciting wouldn't it?

J: I want to be a pilot when I grow up because my dad is.

I: Right. So a pilot it might be then...a Sky Patrol pilot. Mm hmm. That would be an exciting job wouldn't it? Mm hmm. Would you be able to give your picture a name?

J: Yeah.

I: What would you call it?

J: Um... "The Future"?

I: And why did you call it that?

J: Because...it is the future.

I: Mmm. And is there a story that goes with your drawing?

J: Um, no. Not really.

Like Joshua, when Joel was asked if there were a story to accompany *The Bomb Explosion and the Police Place*, his fast-forwarded, truncated version included the out of context components that he inserted essentially upon the request of the interviewer (i.e., the house where he used to live, and the house where he lives in the future). It was as if Joel were jolted back into reality by the interviewer's expectation to provide a "real" story that would be suitable for grown-ups.

The difference between the child's graphic-narrative play and an adult-like story is that the former is not a linear temporal narrative syntagm "composed of three phases – equilibrium-disruption-*equilibrium* – a 'chain' of events corresponding to the beginning, middle and end of a story" (Chandler, 2002, p. 90). Instead, children's telling and picturing of events during graphic-narrative play often are fluid, interactive relationships between words, images and gestures. The children's ideas and depictions often shift in and out of an overall framework, with the complete structure evolving in bits and pieces. The result is similar to what the filmmaker Jean-Luc Godard declared he liked about a film – it should have a beginning, a middle and an end, but not necessarily in that order (cited in Chandler, 2002, p. 90).

Because graphic-narrative play involves a 'cast of one', with the child taking on multiple roles and shaping the characters, plot, action and scenery at will, the unfolding of events is play-like and spontaneous – it is free form. The unplanned nature of the experience is reminiscent of a scene from one of the Indiana Jones movies, when after a series of fabulistic events which have led to a fever-pitched state of affairs, the female lead panics as she sees Indi mounting a horse, about to race away and leave her to fend for herself. She shouts, 'Where are you going *now*?' Indi replies, "I don't know, I'm making this up as I go".

Such qualities of spontaneous inventing were evident in Joel's and Joshua's graphic-narrative play. The boys were frequently one step ahead of the interviewer, explaining the meaning of what they had just drawn while simultaneously drawing a new concept [e.g. "I'm just going to draw one now" (to illustrate what is being discussed), or "OK, now I'll tell you what I have just drawn here" (to describe what has been graphically depicted)]. In addition, the boys returned to previous images frequently to elaborate their ideas with visual detail, and extended the storyline in relation to these new concepts.

Likewise, many of the children in the study used fantasy and futuristic concepts to depict their imaginary worlds, enacting multiple roles within fluid structures which involved the universal themes commonly found in the folklore of literature and the media. In the process, the children – like most artists – invented their worlds in other-worldly ways. These worlds

were rich with integrated graphic, narrative and bodily-kinesthetic forms of symbolic expression. The meaning-making and communicating involved a range of texts that connected the body, thought and emotion.

Conclusions and Educational Importance

In graphic-narrative play, children use a rich amalgam of fantasy and reality – both verbal and non-verbal – to portray life experiences on a blank page (Wright, 2001). Yet cross-modal meaning-making such as this often can be suppressed in institutionalized education. This is largely due to the social and cultural dominance of *literal* language and *written* modes of expression (Kress, 2000a, b; Wright, 2003a, 2005). Such beliefs and curricular practices may be related to the underlying assumption that if something is not expressed through spoken or written language, it is considered to be outside *rational* thought, outside *articulate* feeling.

Yet language as a communicational medium is inadequate for the expression of everything that we think, feel or sense. Hence, drawing, graphic-narrative play and other forms of artistic expression offer important and distinct forms of meaning-making through figurative communication, which is intricate, multifaceted, symbolic and metaphoric. Graphic-narrative play integrates visual-spatial imagery, feelings, sensory modalities and interconnectedness with the body. Such open-ended, personal forms of knowing, expressing and communicating unleash and reveal children's deep meaning, multiple perspective-taking and fluidity of thought.

Education should encompass a full range of such communicative avenues, where children can use a variety of representative forms of expression, and where all modes of meaning-making can be treated with equal dignity and importance (Eisner, 1994; Goodman, 1984; Wong, 2001). It should provide a central role for symbolic experiences, because these are more direct, child-oriented forms of knowing and communication. As illustrated by the examples of Joel and Joshua, many of their abstract concepts demonstrated wisdom which seemed to be well beyond their years. These boys' graphic-narrative play encounters provided us with metaphoric "ideas that tickle your mind"
http://www.tnellen.com/cybereng/lit_terms/metaphor.html.

Education should provide such powerful opportunities for surfacing children's voices and for adults to learn about, with and from children. Symbolic, multi-modal communication often moves children, and others – it reaches the deepest part of our interior worlds.

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